

CLAIMS

We claim:

1. In a first device for transferring a digital signal, a method of exchanging data
5 between the first device and a second device comprising the steps of:

a) establishing a connection between said first device and said second device;

b) a communication layer of code coupled to said first device receiving at least one packet from said second device;

10 c) said communication layer of code sending a response to said second device for each of said packets received in step b); and

d) said communication layer transferring all of said packets as a single group to a processing layer of code coupled to said first device, wherein said processing code and said communication code are independent from each other.

15

2. The method of Claim 1 wherein step b) comprises the steps of:

b1) receiving a packet;

b2) determining whether said packet is a fragmented packet;

b3) if said packet is a fragmented packet, said communication layer of code
20 storing said fragmented packet in a temporary buffer coupled to said first device;
and

b4) if said received packet was not the last packet to be received from said second device, repeating steps b1) - b3).

3. The method of Claim 1, wherein step b) comprises the step of: b1) receiving an un-fragmented packet of data.

4. The method of Claim 1 further comprising the step of:

5 e) negotiating the maximum size of said packets transferred between said first device and said second device.

5. The method of Claim 1 wherein said packet in step b) comprises an audio/video control (AV/C) command.

10

6. The method of Claim 1 wherein step c) comprising the step of: c1) said communication layer of code sending an audio/video control (AV/C) response to said second device for each of said packets received in step b).

15

7. The method of Claim 1 wherein said connection in step a) is made via an IEEE 1394 serial cable.

8. The method of Claim 1 wherein said packet comprises information regarding said second device's compliance with a copy protection scheme.

20

9. In a first device for transferring a digital signal, a method of exchanging data between the first device and a second device comprising the steps of:

a) establishing a connection between said first device and said second device;

b) a communication layer of code coupled to said first device sending at least one packet to said second device;

c) said communication layer of code receiving a response from said second device for each of said packets sent in step b);

5 d) repeating steps b) and c) until all packets are sent; and

e) said communication layer transferring a response to a processing layer of code coupled to said first device, wherein said communication layer of code and said processing layer of code are independent from each other.

10 10. The method of Claim 9 wherein said first device is a sink device and said second device is a source device.

11. The method of Claim 9 wherein said packet in step b) comprises an audio/video control (AV/C) command.

15

12. The method of Claim 9 wherein said response in step c) comprises a response to an audio/video control (AV/C) command.

13. A host device for processing digital audio/video signals comprising:

20

a) a processor coupled to a bus;

b) a memory coupled to said bus;

c) a communication layer of code stored in said memory and, when run in said processor, operable to receive packets from a peripheral device connected to said bus via a communication link;

d) said communication layer of code further operable to send a response to said peripheral device for each packet received from said peripheral device; and

e) said communication layer of code further operable to send all received
5 packets as a single group to a processing layer of code stored in said memory.

14. The device for processing digital audio/video signals of Claim 13 wherein:
said host device further comprises a temporary buffer stored in said
memory;

10 wherein said communication layer of code is further operable to determine whether said packets received in step c) are fragmented packets; and

wherein said communication layer of code is further operable to store said fragmented packets in said temporary buffer.

15 15. The device for processing digital audio/video signals of Claim 13 wherein one of said packet in c) comprises an audio/video control (AV/C) command.

16. The device for processing digital audio/video signals of Claim 13 wherein said response in d) comprises a response to an audio/video control AV/C
20 command.

17. The device for processing digital audio/video signals of Claim 13 wherein said host device is a sink device.

18. The device for processing digital audio/video signals of Claim 13 wherein said host device is a source device.

19. The device for processing digital audio/video signals of Claim 13 wherein
5 said host device seeks full authentication.

20. The device for processing digital audio/video signals of Claim 13 wherein said host device seeks restricted authentication.

10 21. The device for processing digital audio/video signals of Claim 13 wherein said packets comprise information which defines that the peripheral device sending the packet is compliant with a copy protection scheme.

00505498-061600